EXHIBIT 7

A. It has to do with the political geography of the interaction of what you might call traditional geographic features with the distribution of usually partisanship in a state or country.

- Q. And now, on the topic of the distribution of partisanship, in Michigan, are democratic voters more concentrated geographically than republican voters?
 - A. Probably.

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- Q. And why do you say probably?
- A. If you had asked me this in 2012 or probably even 2016, I would have said definitely. But as the suburbs, particularly Oakland County, have swung against republicans, and as some of the more rural areas outside of Detroit and the city areas have swung towards republicans, I'm just not sure it's true anymore that democrats are appreciably more compact than republicans. I'm not saying it's wrong; I'm just saying I don't know. I'm not confident in that like I once would have been.
- Q. Okay. Then let's focus on the area of Detroit in Michigan. In Detroit, are democratic voters more geographically concentrated than republican voters?
- A. In Detroit, I think it's pretty much all democratic voters. I'm not sure you can draw a republican district in the City of Detroit.
 - Q. In the surrounding counties of the Detroit

region, would you agree that democratic voters are concentrated -- pardon me -- are more concentrated than republican voters?

- A. I think ten years ago I would have agreed with that. But I'm just not sure anymore, given how Oakland County has changed over the course of a decade. You're talking about a county that generally voted at or a little bit to the right of the state for the first part, that now we're in a situation where Joe Biden carried it by, I think, 14 points, even though the state was incredibly close. It's just become a lot more democratic, and that helps democrats quite a bit in the Detroit area.
- Q. And in Michigan, do you understand there to be a high number of democratic voters in rural areas?
- A. No. But at a certain point that becomes a problem for republicans, because they start to see the same types of concentrations that democrats see in the cities.

So for an example, if you were to run the simulations on the state of Texas, which has seen similar shifts in its suburban areas at the beginning of the decade, using the Obama Romney partisanship, the mean efficiency gap is well to the right of neutral, but if you run it using the Biden Trump numbers, the average

efficiency gap in the simulations is almost zero.

Republicans have lost their geographic advantage there.

I don't know whether in Michigan the changes have been that extreme, but I can't rule it out. I read Dr. Rodden's books, and I enjoyed them, but I think to some degree they've been supplanted by events.

- Q. And by events, you mean more recent elections?
- A. Yes, the transition of upper middle class white suburbanites out of the republican party and into the democratic party.
- Q. Let's look at Page 26 to 27 of your report,

 Exhibit 1. You note here at the turn of the page from

 26 to 27 that there is no realistic question here about

 the general election, as every district that has a BVAP

 of at least 35 percent is overwhelmingly democratic.

 Since black voters express a consistently strong

 preference for democrats in the aggregates, the black

 candidate of choice will almost certainly win the

 general election; do you see that?
 - A. Yes.

- Q. Have you changed your position on these points since writing this report?
- A. No.
- Q. Let's turn to Page 12 of your report. I had a question for you, a simple question for you about which

Page 68 1 precincts, which data you were using. On Page 12 it 2 indicates Michigan precincts in 2020 by BVAP. Are you 3 using 2020 census data here? 4 A. Yes. I think the way to read that -- and I see 5 the -- I see the potential source of confusion there. 6 It's Michigan precincts from 2020 by BVAP, not Michigan 7 precincts by 2020 ACS BVAP. 8 And now looking at this map that says Michigan 9 precincts by BVAP, did you prepare a map like this of 10 Michigan precincts by partisan vote? 11 Α. No. 12 Q. Okay. Now, looking at this map on Page 12, would 13 you agree that as for the Detroit area, black voters are 14 concentrated -- and let me -- pardon me. Strike that. 15 Looking at this map, would you agree that black voters 16 are concentrated in Michigan in the metro-Detroit area? 17 For the most part, yes. There's a couple other 18 concentrations around Flint and Saginaw, but yes. For 19 the most part, metro-Detroit. 20 Q. Let's bring forward Exhibit 6. 21 22 (Defendant's Exhibit 6 marked for identification.) 23 24 Mr. Trende, do you recognize Exhibit 6? 25 Α. Yes.

Q. Okay. And I understood from your earlier testimony that you reviewed this report; is that right?

- A. At a high level, but yes.
- Q. And what is your reaction to this report?
- A. I like Dr. Rodden. I think he's a good, clean writer. I don't think it does much to detract from my report. I think on a lot of things we're vigorously agreeing with each other, or -- I can't remember what the term of art is when you're yelling at each other in an argument where you agree, but I think we agree on a lot of things, just not the interpretations, or the law.
- Q. Dr. Rodden makes the point from Page 2 to 3 that he viewed your report as implying that racially and politically heterogeneous districts should be viewed as a fingerprint of racial gerrymandering; do you see that?
- A. Mm-hm.
 - Q. Do you agree with him?
- A. No.

- 19 Q. Why not?
 - A. Because there can be racially heterogeneous districts that do just occur naturally. You might draw a perfect square that, you know, has some black population and has some white population. What you're unlikely to do is consistently draw little finger strips or bacon strips that run through some of the poorest

Page 70 areas of Detroit to some of the wealthiest areas of 1 2 Wayne County. Basically he ignores the context and 3 analysis of my report. 4 Dr. Rodden refers to your reference of divvying 5 up Detroit area voters by race; do you see that? 6 Α. Yes. 7 He suggests that your maps show the opposite; do 8 you see that? Where would that be? Α. 10 The bottom of Page 2, last paragraph. Commission's plans, quote, divvy up Detroit area voters 11 12 by race. In fact, his maps show the opposite; do you 13 see that? 14 Α. Yes. 15 And then he notes that whereas the previous 16 redistricting plans often place boundaries precisely along the lines of residential racial segregation, the 17 18 Commission's plans do not; do you see that? 19 Α. Yes. 20 Okay. Do you disagree with him that the previous 21 redistricting plans often place boundaries precisely 22 along the lines of residential and racial segregation? 23 Well, I think what he refers to as the lines of 2.4 residential racial segregation I would refer to as 25 township and county boundaries and city boundaries,

which are required to be respected under the Michigan Constitution.

But yeah, I agree that when you respect city and township and county boundaries as required by the Michigan Constitution, you sometimes will draw lines that fall upon old lines of residential racial segregation. The Eight Mile and the Grosse Pointes tend to have — the Eight Mile tends to, in many places, delineate differences in race, and the Grosse Pointes are not terribly racially integrated.

- Q. In your work, have you developed an understanding of how hewing closely to county/township boundaries affects the partisan balance of a plan?
- A. I think at the beginning of the 2010s when Wayne County was overwhelmingly democratic and Oakland and Macomb Counties were swing to republican depending on the context, that would have a pretty significant impact on the partisanship of the plan.

That's not the case anymore. So, I mean, things have changed a lot politically in the last ten years, as I don't think any reasonable analyst of elections would disagree.

Q. Where do you show in your report an opinion that the partisan balance has shifted enough over the past ten years that complying with county boundaries no

longer has a partisan affect?

- A. That would be the simulations that I ran that comply with county boundaries that result in a partisan distribution that's almost identical to what the Commission came up with.
- Q. How does that address the shift over -- what you're describing as a shift over the past ten years and how hewing to county boundaries no longer has a partisan impact?
- A. Oh. Well, that issue wasn't raised until Dr.

 Rodden's report that, again, to my understanding, I

 wasn't given an opportunity to respond to. But since

 I've talked -- discussed quite a bit about the shifts in

 Wayne County and Macomb County and been cross examined

 on it, I don't know what the state of that would be now.
- Q. What would you do to respond to Dr. Rodden's point here?
- A. I would show the political -- the election results for Macomb and Wayne and Oakland Counties over the past decade for statewide races, and you would see that in 2012 and 2014 those counties actually vote quite similar to one another, and vote right about at the center of the state, voting a little bit to the right.

However, beginning in 2016, and accelerating in 2018 and 2020, that changes, and you end up with

scenarios where Wayne County is now voting 15 points to the left of the state and the country as a whole.

Macomb County has mostly stayed to the center, even a little bit to the right of the state or country as a whole. So that's how I would demonstrate it.

I'd also -- that's how you would demonstrate the shift. To the extent that it matters, I would look at the simulations with respect to Trump's 2020 vote. I'd also -- I mean, with the way you framed the question, I would look at the 2022 results, which of course weren't before the Commission, in fairness.

But since you asked how it would demonstrate a shift, I would look at 2022, where Wayne was way to the left of where Macomb was and the state as a whole. Not Wayne -- Oakland. If I refer to a suburban area shifting in Wayne in my previous testimony, I almost certainly meant Oakland.

- Q. And just so I understand, my question relates not only to what you believe is a shift as having occurred, but a shift sufficient to dissolve the partisan impact of complying with county and township boundaries; do you understand?
- A. I do. And when you're talking about a county like Wayne going from a swing area, or even a little bit reddish, where you're going to end up with slightly more

because sometimes there's a little bit of a jitter. The computer will move things a little bit to the side. It looks like the lopsided margin has a district just barely to the right of the enacted plan, but I can't say with confidence.

- Q. Okay. So it's meaningful to you that the red dotted line, the enacted Hickory plan, overlaps with some output of the ensemble plans; is that right?
- A. Yes, because the question is whether the Commission could have drawn a map -- Dr. Rodden's contention is that it was necessary for the Commission to draw these baconmander districts to achieve their partisan fairness goals subordinating race to partisanship, I guess.

But it's -- even using his definition of partisanship, that's not the case. You could have drawn a map with the -- the ensembles draw maps with identical mean and median differences without doing county splits, and identical efficiency gaps.

Whether some of the differences, you know, on the rest of the distributions are meaningful, like between an efficiency gap of .07 in the enacted map's efficiency gap of, I guess, .04, whether that's politically meaningful, I can't say. Or whether it's -- I can't imagine it's necessary to create the massive

discrepancies in racial composition that we see.

- Q. And while we're in Dr. Rodden's report, can you identify where it shows he's using old data from the past decade?
- A. Not as I sit here, but if I find it, I'll highlight it as we go through things. I think he's using all the elections from 2012 to 2020.
- Q. So I want to make sure I understand. The fact that he's using elections from 2012 to 2020 means he's using old data?
 - A. Yes.

- Q. Okay. And so what data do you think he needs to use in order for his conclusions about, for example, county lines, to be reliable?
- A. I think the presidential election from 2020 is the most indicative election, and that's what political scientists typically use. When Dr. Rodden did his paper with Dr. Chen they were using presidential elections, so he's typically relied on that.

I think if you wanted to incorporate the 2018 data and even 2016, that would be fine. We're just -Donald Trump broke everything, literally everything, and we are just in a very different political environment and alignment than we were at the beginning of the decade. I don't really even think that's controversial.

Q. I don't want to talk past you, Mr. Trende, I just want to make sure I understand. My read of Dr. Rodden's report is that he does look at the 2020 presidential election. Did you read his report to not include that data?

A. No. I'm saying that is all you would include, because once you start including -- for the same reason -- I mean, to use an extreme case, you wouldn't want to include data from 1960 in your partisan analysis, because it's a different world, and it's a different world than 2012.

So as you start to incorporate that data from 2012 and 2014 into your analysis, you are increasingly testing against a Wayne County -- an Oakland County that no longer exists, politically. He's diluting good data with noise, and in a consequential way.

- Q. Have you studied the amount of that consequence?
- A. No.

- Q. Would you agree with me that partisan fairness measures are used to evaluate -- partisan fairness measures used to evaluate a redistricting plan are computed on a plan-wide basis, as opposed to on a regional or district level?
- A. Yes. Well, I shouldn't say that. I think some people have tried to use them. Like, there's a Kentucky